

# —Extensive report taps secrets of Great Lake trout—

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## FISHING: Russell Kelly

THE fisherman's paradise, Great Lake in Tasmania's central highlands, is base for one of the most extensive studies into brown and rainbow trout ever done in Australia.

For more than 30 years the population of both species in the lake has been studied and recorded and this year the first major report on the fish and their habits will be released.

The report is being done by Dr Peter Davies and his findings will form a major part of the management plan for other lakes administered by the Inland Fisheries Commission.

The report will indicate the ideal conditions for raising both species of fish.

Dr Davies has discovered the amount of water in the lake, and therefore the level of the lake, is one of the most important factors affecting

the growth and population of both species of fish.

He has used figures obtained from studies done in the 1950's by a Dr A. G. Nicholls and more recent data obtained by commission officers and himself. He also has used old letters, diaries and catch reports from fishermen and fishing authorities before the 1950s to draw a graph of how the population of fish, their weight and the ratio of rainbow trout to brown trout have fluctuated since the first dam was built in 1915.

He has discovered the level of the lake rises and falls in a regular 14-year cycle and this has significant effects on the average weight of the fish and the

number of rainbow trout which are caught.

For periods when the level of the lake is high, anglers can expect to catch fatter trout of both species, and more rainbow trout.

The next peak in the level of the lake is expected in the next two to three years.

The level of the lake depends more upon rainfall than it does the Hydro-Electric Commission, which regularly alters the level of the lake through the dam on the Shannon River.

Another interesting finding is that both species of trout are smaller now than they have been in the past.

In the 1930s the average weight of brown trout caught in the Great Lake

was about 4.7kg and the average weight of rainbow trout was about 3.5kg. Today full-grown fish of both species average about 1kg.

Brown trout were introduced to the lake in 1870 when 120 fingerlings were taken by horseback to the lake in billycans. Rainbow trout were introduced in 1910. Two species of salmon also were introduced but they could not acclimatise.

The lake produced huge brown trout at the turn of the century. In 1905 one angler recorded a catch of 30 brown trout averaging 4.3kg with two fish weighing 15.5kg.

During the 1920s the ratio of rainbow to brown trout was 50:1. Today the ratio is 1:18.

This year the commission has tagged 300 fish and has offered a \$1 reward for every fish.